

Cool



SHADE TREE PROGRAM

AN DIEGO REGION



Communities

Strategically

**Planting Trees** 

Conserves Energy,

**Saves Money** 

**And Enhances** 

**Our Environment** 





## Free Trees

## It's A Shady Deal!

#### Free Trees!

San Diego Regional Energy Office, in cooperation with People for Trees, is giving away up to 17,000 trees throughout San Diego County to residents just like you. And not little dinky trees either. Ours are full-sized, 15-gallon nursery quality specimens in your choice of over 20 varieties. You can get up to 5 trees depending on the size of your property and your estimated energy savings.

#### Why Are We Doing This?

It's Simple. Trees create shade. Shade cools homes. Cooler homes use less air conditioning and less energy. So trees save energy. They also enhance neighborhood appearance, increase property values, reduce storm runoff and improve local air quality.

Just submit a signed participation agreement, attend a short workshop, agree to take good care of your trees, and the trees are yours. Tell your neighbors about the program, too!

SO GET GOING!

Plant Trees.

Grow Shade.

Save Energy.





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## **Eligibility**

CUSTOMERS ELIGIBLE FOR THE SDREO COOL COMMUNITIES SHADE TREE PROGRAM ARE: RESIDENTS, AND PRIMARY AND SECONDARY SCHOOLS.

NOT ELIGIBLE ARE: COMMERCIAL, UNIVERSITIES, AND PUBLIC AGENCIES (EXCEPT PRIMARY AND SECONDARY SCHOOLS).

#### **Benefit Overview**

 $\underline{Electricity\ Bill\ Reductions}\ from\ Energy\ Savings$ 

Healthy 4- to 10-Foot Tall Free Trees and Planting Materials

Free Classes on Tree Planting and Care

Increased Property Value

Recommendations for Optimal Energy Saving Planting Locations

Reduced Soil Erosion and Storm-Water Runoff

Improved Air Quality through Plant Filtering





## Benefits

## Of Planting Trees

#### STRATEGICALLY PLANTED TREES SAVE ENERGY

- Help reduce overall air conditioning use and associated costs by up to 20 percent in homes and buildings.
- Shade outside air conditioning units, allowing them to operate 10 to 15 percent more efficiently than unshaded units.
- Provide shade that makes an attic 20 to 40 degrees Fahrenheit cooler on hot, sunny days, and walls about 15 degrees Fahrenheit cooler than unshaded walls, reducing energy needed for indoor cooling.
- Reduce the urban heat island effect, lower outside air temperatures, and cut down glare on sunny days.
- Lessen dryness in arid climates by releasing moisture through their leaves. Create wind barriers to help provide savings on winter heating costs.

#### TREES REDUCE AIR POLLUTION AND FIGHT GLOBAL WARMING

- Decrease energy use by providing natural shade, thus lowering the amount
  of air pollutants and greenhouse gases that come from electricity generation,
  and helping to create fewer smoggy days.
- Settle out, trap and absorb numerous pollutants (such as dust, ash, pollen and smoke) from the air.
- Act as a carbon "sponge" by removing the carbon from carbon dioxide
  (a greenhouse gas that contributes to global warming) and storing it in their
  trunks, while releasing the oxygen back into the air.

#### TREES CONSERVE WATER AND REDUCE WATER POLLUTION

- Trap and hold water from storms, which also lessen the amount of pollution that can enter streams and oceans.
- Increase the amount of water filtered back into the ground, counteracting the effects of large areas of pavement.
- Reduce soil erosion and sedimentation in streams.
- Require, in many cases, minimal water once mature, and help lessen the need to water lawns by providing the lawns with much-needed shade.

#### TREES ENHANCE OUR COMMUNITIES

- Increase property values (by 5 to 20 percent compared to non-landscaped homes, according to the International Society of Arboriculture.)
- Establish more business- and shopping-friendly areas.
- Add natural character to our communities and create more livable neighborhoods by providing us with color, flowers and fruit.
- Create feelings of relaxation and well-being.
- Provide privacy and a sense of solitude and security.







## **How To Get**

## Your Trees: From Start to Finish



- Read through the booklet. Call 619-222-8733 with any questions you have and ask for the Cool Communities Program Manager.
- Fill the application out completely on page 12 (we must have your SDG&E account number). We are unable to process incomplete applications.
- Send in the application. Getting the completed application to People For Trees (PFT) is the most important step.

Fax to: 619-223-8733 (No cover sheets please) (or)

Mail to: People for Trees, Cool Communities Shade Tree Program, PO Box 120505, San Diego, CA 92112

Once you submit your application, please contact PFT to ensure they received your application. We can not be responsible for any lost or misdirected applications, so please call to ensure that we get your application and to ensure it is complete.



Once PFT receives your application, and has enough interest in your area to schedule a planting class, you will be contacted by phone or email (please note that due to the huge response to this program and due to the limited number of trees available, it could take a while to place you in a class). If there is not enough interest in this program to hold a class in your area, then PFT can place you in another class in the city of San Diego and then you can pick your trees up from the nursery. When you call to ensure we get your application, we can let you know if there is interest and classes in your area. In most cases, PFT can have trees delivered directly to your house if we are conducting a class in your area. However, trees may need to be picked up at the nursery if you live outside the delivery area, if the delivery area is too large or too spread out. If you do pick your trees up from the nursery, please make sure that you take a bed sheet or tarp for each tree you pick up to prevent wind whipping of the trees. It is recommended that you use a pick-up truck or trailer to pick your trees up because they are tall.



Once a planting date has been set for you, you will need to call DigAlert (1-800-227-2600) at least 2 weeks prior to the planting date so that underground utilities may be identified for you. Then, you will need to dig the holes for your trees (minimum of 18"x 18" x 18" in the shape of a cube). Do not discard the soil from the hole. We also do not recommend making any amendments to your soil so that the roots of the trees will grow properly. Please note that your trees WILL NOT be delivered (if you are in the delivery area) if the holes are not already dug.



Show up at the designated planting demonstration site no later than the designated time on the date set. You are required to attend a demonstration in order to receive your free trees—there are NO EXCEPTIONS! If you fail to attend a class once you are scheduled, your application will be cancelled and you will no longer be eligible for the free trees. Once the demonstration is finished, you will be ready to plant your new trees! If you have any questions, please feel free to call us.

PLEASE NOTE THERE WILL BE AN EVALUATION PHASE OF THE PROGRAM TO VERIFY THAT TREES WERE PLANTED APPROPRIATELY, INCLUDING PROPER LOCATIONS, AND THAT THEY ARE BEING WELL MAINTAINED.

questions?

619 222 8733





## **Trees**

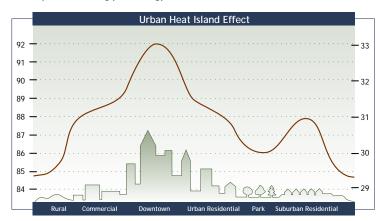
## **And Saving Energy**

#### How Can You Plant Trees To Save Energy?

It is important to consider how both summer and winter sun affect your home and your energy use, and how the insulation in your walls and attic, plus the placement of your windows, impact the extent to which the sun heats up the inside of your home. Planting the right trees in the right places will give you the greatest benefits and greatest enjoyment from these natural air conditioners.

In mid-summer, the sun shines most intensely on east-, west-, and south-facing walls, doors and windows, plus beats straight down on the roofs of homes. Temperatures reach their highest points during the hot summer afternoons, and energy use increases as air conditioners and fans are turned on to cool homes.

During winter, the sun, because it's lower in the sky, shines more on the south side of homes, actually creating warmth and reducing energy needed for heating. So, it's important to recognize when shade offers maximum benefits and when it actually causes more energy use. Strategic use of two types of trees, evergreen (which keep a full cover of leaves all year) and deciduous (which lose their leaves once a year, usually in the late fall or winter) can assist you in lowering your energy use both in summer and winter.

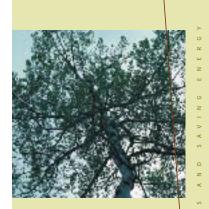


PLANT DECIDUOUS TREES ON THE SOUTH SIDE, AND FOR MEDIUM AND LARGER TREES, ON THE SOUTHEAST AND SOUTHWEST SIDES OF YOUR HOME TO CREATE SHADE, PLUS TO LET WINTER SUN IN TO HELP WARM YOUR HOME DURING THE COOLER MONTHS:

Avoid planting evergreens on the south, southeast and southwest sides
of your home, as their year-round cover of leaves will interfere with
natural solar heating in the winter, costing you more money in the
winter than you save by shading your house in the summer.

PLANT EVERGREENS AND/OR DECIDUOUS TREES ON THE EAST, WEST, AND IN SOME CASES (WITH LARGER TREES) ON THE NORTHEAST AND NORTHWEST SIDES OF YOUR HOME TO PRODUCE SHADE THAT MINIMIZES THE IMPACTS OF SUMMER SUN.

MULTI-FAMILY DWELLINGS ARE ONLY ELIGIBLE TO RECEIVE A MAXIMUM OF 2 TREES AND PLANTING LOCATIONS MUST MEET PROGRAM REQUIREMENTS.

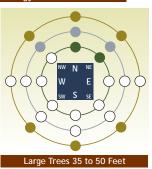


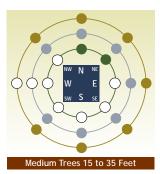




#### Saving Energy With Trees









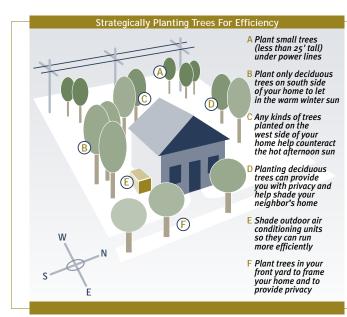
- Pay particular attention to shading windows, doors and air conditioners (if you have one) to provide the greatest energy-saving benefits. Help any outdoor air conditioning units run more efficiently by shading them without blocking airflow into the units.
- Shade patios and driveways adjacent to your home if possible, because these areas absorb and radiate unwanted heat in the summer. (You can counteract their tendency to raise the surrounding air temperature by shading at least 50 percent of the paved areas near the house. This also will lower your need for air conditioning or fan use inside.)
- For shading purposes on the east and west sides of your home, select evergreens to get year-round greenery and privacy. Select deciduous trees to see fall colors and let in a maximum amount of winter sun.

When planting your tree, first consider the existing conditions of your home and yard. To help you make the best planting location choices, you must have your underground utility lines marked for free by calling Underground Service Alert of Southern California known as DigAlert, at 1-800-227-2600. To ensure a safe and healthy environment for you and your tree, look for overhead power lines.

Studies show that maximum energy savings result from strategically planting shade trees on the east, south and west sides of your home, with the greatest benefits coming from trees planted less than 18 feet from your home. Small trees must be planted within 15 feet, medium trees must be planted within 35 feet, and large trees must be planted within 50 feet of your home. Always remember, though, to keep adequate space between the trees and your foundation and other "hardscapes" to avoid damage from growing roots. Although energy conservation benefits diminish as trees are planted farther away from your

home, even small trees continue to provide benefits when planted on the west and east sides of your home. As reflected in the diagrams above, shade trees planted on the west side of your home can counteract the heating effects of the hot afternoon sun when air conditioning is most needed.

SDREO RESERVES THE RIGHT TO CONDUCT ON-SITE VISITS TO VERIFY THAT TREE(S) WERE PLANTED IN THE PROPER LOCATIONS ACCORDING TO PROGRAM REQUIREMENTS. IN ADDITION, THERE WILL BE AN INDEPENDENT EVALUATION OF THE PROGRAM TO ENSURE PROGRAM COMPLIANCE.









# **Planning**

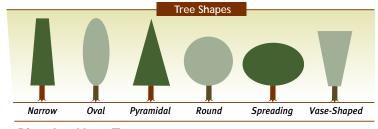
# **And Planting**

#### Overhead Lines/Equipment

If you need to plant your tree(s) near overhead utility lines, it is absolutely essential that you select trees that will remain small, not exceeding 25 feet in height. Taller trees, even when carefully trimmed, often will interfere with the utility lines, potentially causing hazardous situations and power interruptions. When they are trimmed to maintain clearance from the power lines, taller trees become stressed, and develop poor structure, posing a future hazard.

While SDG&E's power line clearance tree trimming program trims branches away from power lines that connect two poles, you are responsible for keeping branches clear from the individual service lines on you property. However, please remember to NEVER put yourself in danger by attempting to prune or climb a tree near an energized utility line. Instead, if you see a tree that has grown into power lines, or need your individual electric service line temporarily disconnected so you can safely prune branches on your property, call 1-800-411-SDGE (7343).

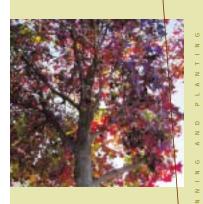
Also, before you take shovel to dirt, always double check for underground utilities such as sewer, gas, water and cable lines, plus sprinkler system equipment. In this program, to help you make the best planting location choices, you must have your underground utility lines marked for free by calling Underground Service Alert of Southern California, known as DigAlert, at 1-800-227-2600. DigAlert requests that you call between two and 14 days prior to planting, and that you know the proposed planting site. When you call, please ask about any other preparations required of you before you use this service.



#### **Planting Your Tree**

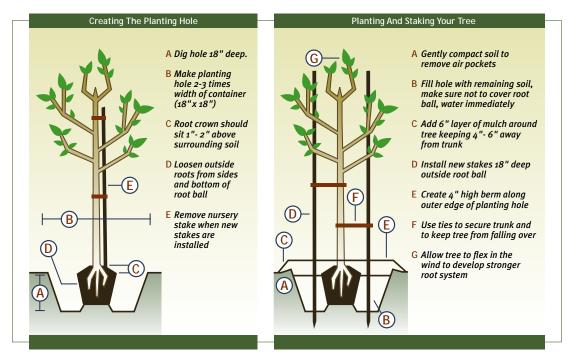
Successful tree planting takes place when trees remain safe and healthy, while at the same time increasing in beauty, usefulness and value for many years to come. To grow shade trees, you must take into account the existing conditions of your home and yard. First, look carefully for overhead power lines. To ensure a safe and healthy environment for you and your tree(s), only trees that will grow less than 10 feet to the wires should be considered. The tree selection chart on page 11 has a number of smaller variety trees. Please ask program staff which trees would be appropriate.

Remove and discard grass and weeds from the planting site. The hole should be 18" wide by 18" long side in the shape of a square. Dig the hole 18" deep. Do not amend the soil with anything. Use only the native soil to encourage proper root growth and spread.









- Move tree to edge of hole by the container, being careful not to use the trunk. Loosen container from the root ball and then remove the tree from container and carefully place tree in hole. Be careful not to break or damage the root ball.
- Place the tree in the center of the hole so that the root crown (where the trunk meets the roots) is about 1"-2" above the surrounding ground level.
- Backfill the hole with the native soil you removed! Discard any grass and weeds from the soil and break up dirt clods & remove rocks as you go. Do not add any soil amendments.
- Gently compress the soil while backfilling and then finish filling hole level with surrounding soil. Do not compact further or cover root ball with fill soil. Be sure to let your tree's roots breathe!
- Most likely your tree came tied to a nursery stake, remove it. Use the stakes and ties provided by program staff. Place the stakes on opposite sides of the tree, approximately 18" from the trunk. Each tie should be placed around the trunk and attached to a stake. Place the ties so the tree stands without

leaning, but tie them loosely enough to allow for growth and movement. Periodically check the stakes and ties to ensure that they are not harming the trunk or branches. The tree normally should be able to stand alone within 1 year of planting. The stakes should be removed when the tree is stable.

PROTECT YOUR TREES FROM DOGS, CATS OR OTHER ANIMALS WITH CHICKEN WIRE OR FENCING.

- Water thoroughly right after planting to soak the planting area and settle the soil.
- Oreate a berm around your newly planted tree to create a water basin. The basin should be at least 4' wide with an edge



built up to at least 4" high. This serves to conserve water and direct moisture to the tree's rootball.

It is important to mulch your tree! Spread mulch or wood chips about 6" deep over the entire planting area, leaving a bare 4" to 6" area directly around the trunk. Any woodchip mulch will work. Then stand back and see how beautiful your tree looks!





## Care

## **And Maintenance**

#### Watering

For a newly planted tree, "deepwater" 15 gallons a week when the temperature is below 90 degrees F and 30-40 gallons a week if the temperature climbs to 100 degrees F or above. If you are planting during the summer, follow this watering schedule until the fall rains begin. Water your trees deeply and slowly by placing a hose in the tree well and letting it trickle. SPRINKLERS ARE NOT ADEQUATE to allow the water to go deep enough and moisten all the tree roots. Summer watering is very important in the first few growing seasons. PLEASE WATER CAREFULLY! Soil and environmental conditions vary, so KEEP THE ROOTBALL MOIST, but be careful not to over water. It is easy to determine if the soil near the trees is too wet or too dry. Dig up a handful of soil from about 6" deep and squeeze it into a ball. If it crumbles, it is too dry. If water drips out, it is too wet.

#### Mulching

Keep wood chips or other organic mulch 6" deep around the base of your tree (but 4" away from the trunk) to help control weeds and reduce moisture evaporation from the soil. Wood chips improve the soil structure and its fertility. DO NOT MULCH WITH ROCK OR GRAVEL. Mulching with rock does not provide the insulation to the roots that a 6" layer of wood chips provides to keep a tree growing vigorously during the hot summer months. Also, do not use black plastic since tree roots need to breathe.

#### Weeding

Keep the planting area (4' in diameter) clear of weeds, grass and other plant life. Competition from other plants inhibits young tree growth. Do not use a lawn mower or weed trimmer within this area. Put on a pair of gardening gloves and pull the weeds out by hand. To avoid this chore altogether, MULCH!

#### Staking And Tying

If your tree came with a nursery stake (a thin stake attached to the tree trunk) remove it to enable the tree to get strong. You will also receive more permanent stakes at planting time. Follow proper planting instructions included in this guide. Make sure you periodically check the stakes and ties to ensure that they are not harming the trunk or branches. The sooner you remove the stakes and ties, the stronger the tree will be (but they should be left on at least the first year). If you're not sure whether it's time to let the tree grow on its own, call 619-222-TREE (8733) for advice.

#### Fertilizing

Wait one full growing season to use organic, slow-release fertilizer that supplies nutrients for approximately one year. After that, continue to fertilize your trees at least annually. Your local nursery can advise you on the best product and its use. Remember to water thoroughly when you fertilize and to carefully follow package directions to be certain that you do not over fertilize. Do not use "weed and feed" fertilizer mixes, as they will damage young trees.







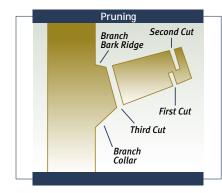
#### **Pruning**

Pruning helps a tree develop proper structure, control its size, directs its growth and maintains its health, safety and beauty. Experts recommend that you not prune a young tree for the first three years following planting, because the trees grow faster and stronger when more foliage remains on them. If, however, a young tree's lower side branches (along the trunk) grow too long, you can cut them to 4" to 5" long, but DO NOT cut them all the way down to the trunk. Because they help the tree grow more vigorously and help protect the trunk from sunburn, you should not remove these lower side branches until the tree reaches at least three years of age. Once the tree passes the three-year mark, emergencies aside, it's best to prune in the winter, when most trees are dormant. You want to prune before the tree puts out any new spring growth. If you cannot prune your tree yourself, hire only an International Society of Arboriculture (ISA) certified arborist. (You can find a list of certified arborists near you by visiting www.isa-arbor.com) A good pruning job (for shaping purposes) should never result in the removal of more than 25 percent of the leaves and branches, and branches should not have cuts over 1/2 an inch in diameter. However, diseased or broken branches may require larger cuts, but never top your tree!

#### **PRUNING PROCEDURES**

When it is time to prune, follow these general procedures for young trees:

- 1 Use only clean and sharp pruning tools.
- Remove dead, damaged and the weakest of any crossing limbs as well as suckers from the base of the tree.
- Each branch selected for removal should be cut outside the small ridge known as the branch bark collar located where the branch joins the trunk. Leave this collar intact. Wound dressings should not be used for pruning cuts.
- 4 NEVER CUT THE TOP OFF YOUR TREE!
- After 3 years, you may prune the lower limbs to approximately one foot off ground level. If you want to walk under your tree canopy, continue to remove the lower limbs (1' off the ground) each year for up to 6 years.
- 6 Leave most pruning that cannot be done from the ground or a short ladder to a certified arborist. Contact your local nursery, or visit the ISA Website at www.isaarbor.com, for names of certified arborists in your area.



Provided by Los Angeles Department of Water & Power

**NOW IT'S YOURS!** The key to growing healthy and beautiful trees is your STEWARDSHIP of your newly-planted tree(s). Although caring for your trees does require scheduled attention by you, it is not difficult or demanding work. Please take care of your trees so that they may provide years of shade and beauty and grow our urban forest.



PLEASE NOTE THAT
REPLACEMENT TREES
WILL NOT BE
PROVIDED IN
THE EVENT YOUR
TREE(S) DO NOT
SURVIVE.





# Tree Selection Chart

Below is a summary of the tree choices and basic information that are listed in detail on the following pages.

BOTANICAL NAME	COMMON NAME	TYPE	HEIGHT (FT)	SPREAD (FT)	
LARGE					
Cinnamomum camphora	Camphor	Evergreen	50-55	50-60	
Chorisia speciosa	Los Angeles Silk	Deciduous	40-55	35-50	
Jacaranda mimosifolia	Jacaranda	Deciduous	30-60	30-45	
Liquidambar styraciflua	Sweetgum / Liquidambar	Deciduous	60-75	35-50	
Magnolia grandiflora	Southern Magnolia	Evergreen	60-80	35-50	
Pinus canariensis	Canary Island Pine	Evergreen	60-90	30-40	
Pinus pinea	Italian Stone Pine	Evergreen	35-50	30-45	
Plantanus acerifolia	London Plane	Deciduous	70-90	70-80	
Podocarpus gracilior	Fern Pine	Evergreen	50-60	25-35	
Quercus agrifolia	Coast Live Oak	Evergreen	55-65	50-60	
MEDIUM					
Agonis flexuosa	Weeping Peppermint	Evergreen	30-35	20-25	
Albizia julibrissin	Mimosa Silk Tree	Semi-Evergreen	15-25	25-35	
Brachychiton acerifolius	Flame Bottle Tree	Semi-Evergreen	25-50	25-35	
Cassia leptophylla	Golden Medallion	Semi-Evergreen	25-50	25-35	
Koelreuteria bipinnata	Chinese Flame	Deciduous	25-50	25-35	
Koelreuteria paniculata	Golden Rain	Deciduous	25-30	15-30	
Morus alba 'fruitless'	Fruitless Mulberry	Deciduous	30-35	30-35	
Pistacia chinensis	Chinese Pistache	Deciduous	40-55	30-40	
Prunus caroliniana	Carolina Laurel Cherry	Evergreen	35-40	15-25	
Rhus lancea	African Sumac	Evergreen	25-30	30-35	
Robinia ambigua	Purple Robe / Locust	Deciduous	35-40	25-30	
SMALL					
Lagerstroemia indica	Crape Myrtle (Pick Color)	Deciduous	15-25	10-20	
Prunus cerasifera	Purple-Leaf Plum	Deciduous	15-25	15-25	
Pyrus calleryana	Bradford Pear	Deciduous	20-30	15-20	



FAX TO: (or) 619-223-8733 Attn: Cool Communities Program Manager MAIL TO: People for Trees PO Box 120505 San Diego, CA 92112

I HAVE READ THE SDREO "LETTER OF AGREEMENT" AND UNDERSTAND THE RESPONSIBILITIES I ASSUME IN JOINING A NEIGHBORHOOD PLANTING IN COOPERATION WITH THE SAN DIEGO REGIONAL ENERGY OFFICE.

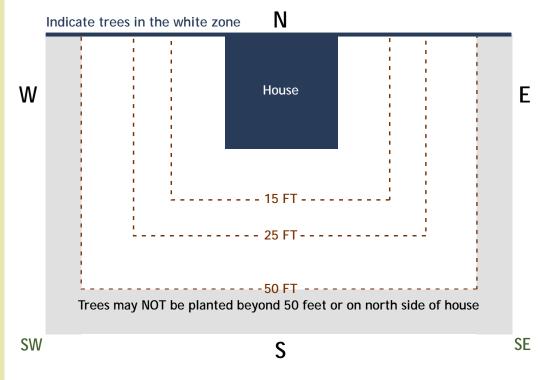
By signing this agreement I agree to accept responsibility for monitoring the water needs of each tree and watering accordingly for as long as I am living at the following address. I agree to plant my tree(s) in the appropriate locations in proximity to my home as required by SDREO. I also accept responsibility for keeping the tree wells free from leaves, debris and weeds and will maintain the stakes and ties until the time at which they should be removed.

NAME OF PARTICIPANT: First		Last			
HOME ADDRESS:		City		Zip Code	
CROSS STREET:	TELEPHONE (	)		( )	
CROSS STREET.	Home	/ Cell		Work / Cell	
E-MAIL*: *THIS IS FOR COMMUNICATION PURPO	SES ONLY. INFORMATION WILL BE KEP	T PRIVATE AND CONI	FIDENTIAL, AND V	WILL NOT BE SOLD TO OUTSIDE PARTI	ES.
Location: (circle one) Single Family	Multi-Family M	obile Home	School		
I Have Filled in the Planting L	ocation Diagram (on the b	oack of this ap	oplication)		
Do You Rent or Own the Property SDG&E Account Number: (upper left of NUMBER OF TREES*: (circle one) 1*Note: Number of trees must be justified by pot maximum of 2 trees.	2 3 4 5		mined by SDRE	EO. Mulit-family may only receive	a
TREE SPECIES SELECTED *Note: This must be completed in order for you	to receive your tree(s).	PLANTIN	G LOCATIO	(circle one)	
1		West	East	South	
2		West	East	South	
3		West	East	South	
4		West	East	South	
5		West	East	South	
PARTICIPANT SIGNATURE:				_ DATE:	
If you are a tenant requesting the before trees will be ordered and a		st obtain writ	ten permiss	sion of the property owne	er
I am the owner of the property ar	d am requesting planting	g of the trees	listed on	this form.	



#### Planting Location Diagram

Place an "X" on the diagram to indicate where you plan to plant your tree(s), and indicate which species you plan on planting there.



\*Note: Small trees must be planted within 15 ft., medium trees must be planted within 35 ft., and large trees must be planted within 50 ft.

VEELLE IICE	$\Delta HIV$
OFFICE USE	UNLI

WORKSHOP ATTENDED: \_\_\_\_\_\_ DATE: \_\_\_\_\_

Planting Date: \_\_\_\_\_ Adjustment Date: \_\_\_\_ CROSS STREET: \_\_\_\_

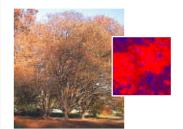


## Choices

#### **Small**

Small-sized trees grow up to 25 feet tall. Can grow above rooftop of a single-story house, and work well for shading walls and windows. Highly suitable for planting under overhead utility lines, and can avoid interference with rooftop solar photovoltaic panels or satellite dishes.

MAX SPREAD (FT): 20



## Lagerstroemia indica Crape Myrtle

TYPE: Deciduous EXPOSURE: Full Sun MAX HEIGHT (FT): 25

GROWTH RATE: Average
TREE SHAPE: Oval / Rounded / Umbrella / Vase

SUNSET CLIMATE ZONES: 07-14, 18-21

FOLIAGE: Leaves have red, gold, orange and multicolored fall colors and are otherwise green

CHARACTERISTICS: Can handle very acidic, slightly acidic, neutral to slightly alkaline soil. Soil should be clay, loam or sand and be kept moist to dry. Produces small brown fruit in fall and lavender, pink, red or white showy flowers through summer. **PLEASE SELECT A COLOR.** Not susceptible to frost.

**DETAILS:** Drought resistant, handsome peeling bark and colorful summer bloom. **ROOT DAMAGE POTENTIAL:** Low



#### Prunus cerasifera Purple-Leaf Plum

MAX HEIGHT (FT): 25 MAX SPREAD (FT): 25

TYPE: Deciduous MAX EXPOSURE: Full Sun / Partial Shade

**GROWTH RATE:** Fast TREE SHAPE: Oval / Vase SUNSET CLIMATE ZONES: 02-22

FOLIAGE: Bronze / Purple/ Green and moderately dense.

CHARACTERISTICS: Can handle very acidic, slightly acidic, neutral, slightly alkaline to very alkaline soil. Soil should be clay, loam and sand and be kept moist. Produces prolific inconspicuous, non-edible, non-poisonous summer fruit and beautiful showy white flowers

through spring. Not susceptible to frost.

**DETAILS:** Changing foliage that starts as coppery-red and eventually turns a bronzy-green. **ROOT DAMAGE POTENTIAL:** Low



Photo by Crandall & Crandall

## Pyrus calleryana Bradford Pear Type: Deciduous Max Height

MAX HEIGHT (FT): 30 MAX SPREAD (FT): 20

EXPOSURE: Full Sun GROWTH RATE: Medium/Fast TREE SHAPE: Rounded / Umbrella SUNSET CLIMATE ZONES: 02-09, 14-21

FOLIAGE: Glossy, dark-green, turns dark red in the fall and small, clustered white flowers

CHARACTERISTICS: Small, inconspicuous, non-edible fruit that attracts birds. Branch crotches in

mature trees tend to split. **DETAILS:** Not susceptible to frost. **ROOT DAMAGE POTENTIAL:** Moderate



## Choices

#### Medium

Medium-sized trees grow 25-55 feet tall. Will provide shade for the walls and windows of a two-story home, and for the entire roof of a single-story home. Should never be planted under overhead utility lines.

MAX SPREAD (FT): 25



#### **Agonis flexuoa Weeping Peppermint**

TYPE: Evergreen MAX HEIGHT (FT): 35

**EXPOSURE:** Full Sun/Partial Shade **GROWTH RATE:** Moderate/Fast

TREE SHAPE: Umbrella

SUNSET CLIMATE ZONES: 15-17, 20-24

CHARACTERISTICS: Small white flowers that are abundant in late Spring/Summer. Leaves smell like peppermint when crushed. Very susceptible to frost, especially until well-established.

DETAILS: Very tolerant of different soil types and watering paractices. Tolerates strong winds and thrives in California gardens where temperature stays above 27°F/-3°C. Can be planted

as wind breaks.

ROOT DAMAGE POTENTIAL: Moderate



San Diego



# Tree

#### Medium

#### Medium-sized trees grow 25-55 feet tall. Will provide shade for the walls and windows of a two-story home, and for the entire roof of a single-story home. Should never be planted under overhead utility lines.

MAX SPREAD (FT): 35

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MAX SPREAD (FT): 30



Albizia julibrissin Mimosa Silk Tree
Type: Semi-Evergreen Max Height MAX HEIGHT (FT): 35

EXPOSURE: Full Sun **GROWTH RATE: Fast** 

**Choices** 

TREE SHAPE: Round / Umbrella / Vase SUNSET CLIMATE ZONES: 04-23

FOLIAGE: Green low moderately dense.

CHARACTERISTICS: Can handle acidic and alkaline soil. Texture can be clay, loam or sand. Produces persistent brown fruit and gorgeous white and pink showy flowers through spring and summer. Not susceptible to frost.

**DETAILS:** Branches droop and are susceptible to breakage. Do not plant where there will be

heavy wind. Does best in high heat.

ROOT DAMAGE POTENTIAL: Moderate



# Brachychiton acerifolius Flame Bottle Tree Type: Evergreen / Partial Deciduous Max Height (FT): 50 Exposure: Full Sun / Partial Shade

**GROWTH RATE:** Fast TREE SHAPE: Conical

FOLIAGE: Leaves are glossy and medium green and dense.

CHARACTERISTICS: Can handle slightly acidic, neutral, slightly alkaline, to very alkaline soil. Soil should be loam or sand and moist or dry. Produces large brown follicle fruit in fall and summer and showy orange and red flowers through spring and summer. Hardy to  $25^{\circ}F/-4^{\circ}C$ .

**DETAILS:** Drought tolerant. At juvenile stage, trunk is very thorny.

ROOT DAMAGE POTENTIAL: Moderate



#### Cassia leptophylla Gold Medallion Tree

TYPE: Semi-Evergreen MAX HEIGHT (FT): 50

EXPOSURE: Full Sun **GROWTH RATE: Fast** 

TREE SHAPE: Rounded / Umbrella SUNSET CLIMATE ZONES: 15, 16, 20-24

FOLIAGE: Leaves are medium green and moderately dense.

**CHARACTERISTICS:** Can handle neutral or slightly alkaline soil. Soil should be loam or sand and moist or dry. Produce brown pod fruit in the fall and beautiful yellow showy flowers in the summer.

Susceptible to frost.

DETAILS: Prefers fast draining soil and requires a moderate amount of water.

ROOT DAMAGE POTENTIAL: Low



#### Koelreuteria bipinnata Chinese Flame

Type: Deciduous MAX HEIGHT (FT): 50

EXPOSURE: Full Sun / Partial Shade

GROWTH RATE: Average
TREE SHAPE: Rounded / Umbrella / Vase

**SUNSET CLIMATE ZONES: 08-24** 

FOLIAGE: Leaves have bronze and gold fall color and are otherwise medium green and

moderately dense.

CHARACTERISTICS: Can handle very acidic, slightly acidic, neutral, slightly alkaline to very alkaline soil. Soil should be clay, loam or sand and be kept moist. Produces prolific large orange/red capsules in the fall and showy yellow flowers through summer and fall. Not susceptible to frost. **DETAILS:** Good shade tree and beautiful flowers. Non-invasive roots.

**ROOT DAMAGE POTENTIAL: LOW** 



#### Koelreuteria paniculata Goldenrain Tree

TYPE: Deciduous MAX HEIGHT (FT): 35

**EXPOSURE:** Full Sun / Partial Shade

GROWTH RATE: Average
TREE SHAPE: Rounded / Umbrella / Vase

**SUNSET CLIMATE ZONES: 02-21** 

FOLIAGE: Leaves have bronze and gold fall colors and are otherwise dark green and

moderately dense.

CHARACTERISTICS: Can handle very acidic, slightly acidic, neutral, slightly alkaline to very alkaline soil. Soil should be clay, loam or sand and be kept moist to dry. Produces prolific large brown/yellow capsule fruit in the fall and yellow showy flowers through summer. Not susceptible to frost.

DETAILS: Drought and SMOG tolerant. A tough attractive tree.

ROOT DAMAGE POTENTIAL: Low







# Morus alba 'fruitless' Fruitless Mulberry Type: Deciduous Max Height (FT): 35 Exposure: Full Sun / Partial Shade

MAX HEIGHT (FT): 35

**GROWTH RATE:** Fast TREE SHAPE: Rounded / Vase

**SUNSET CLIMATE ZONES: 01-19** FOLIAGE: Dark green in Spring and Summer, and gold in Fall.

CHARACTERISTICS: Can grow in all soil types from very acidic to very alkaline. Can take moist or dry

MAX SPREAD (FT): 35

MAX SPREAD (FT): 40

MAX SPREAD (FT): 25

MAX SPREAD (FT): 35

MAX SPREAD (FT): 30

soils, either clay, sand or loam. Fruitless, but produces inconsicious flowers in the Spring. **DETAILS:** Not suseptible to frost. Sap is toxic. Can handle Drought.

ROOT DAMAGE POTENTIAL: High



#### Pistacia chinensis Chinese Pistache

TYPE: Deciduous EXPOSURE: Full Sun / Partial Shade MAX HEIGHT (FT): 55

GROWTH RATE: Average TREE SHAPE: Oval / Rounded / Umbrella

SUNSET CLIMATE ZONES: 04-16, 18-23
FOLIAGE: Leaves have red, gold, orange and multicolored fall colors and are otherwise medium

CHARACTERISTICS: Can handle slightly acidic, neutral, slightly alkaline to very alkaline soil. Soil should be clay, loam or sand and be kept moist to dry. Produces prolific blue/ red fruit in the fall and summer and inconspicuous flowers through the spring. Good Fall color. Not susceptible to frost.

DETAILS: Resistant to oak root fungus. Drought tolerant, but needs good drainage.

Does not produce pistachios. ROOT DAMAGE POTENTIAL: Low



## Prunus caroliniana Carolina Laurel Cherry

TYPE: Evergreen
EXPOSURE: Full Sun / Partial Shade MAX HEIGHT (FT): 30

GROWTH RATE: Average TREE SHAPE: Rounded **SUNSET CLIMATE ZONES: 05-24** 

**FOLIAGE:** Smooth-edged, glossy green leaves.

CHARACTERISTICS: Fragrant white flowers from late winter to mid-spring followed by non-edible

poisonous fruit. Flower and fruit cause litter. Not susceptible to frost. **DETAILS:** Tolerates poor soil, strong wind, and drought. Can handle very acidic to slightly

alkaline soils.

ROOT DAMAGE POTENTIAL: LOW



Rhus Iancea African Sumac
TYPE: Evergreen MAX HEIGHT (FT): 30
EXPOSURE: Full Sun / Partial Shade
GROWTH RATE: Slow

TREE SHAPE: Spreading

SUNSET CLIMATE ZONES: 08, 09, 12-24
FOLIAGE: Dark green leaves, divided into three willow-like, leaflets.

CHARACTERISTICS: Early spring flowers are followed by clusters of pea-size yellow or red fruit.

**DETAILS:** Well adapted to desert heat.

**ROOT DAMAGE POTENTIAL: LOW** 



Photos by Paul Sirois

Robinia ambigua Purple Robe / Locust
Type: Deciduous MAX HEIGHT (FT): 40
EXPOSURE: Full Sun / Partial Shade

GROWTH RATE: Medium / Fast TREE SHAPE: Narrow / Oval SUNSET CLIMATE ZONES: 02-16, 18-24

FOLIAGE: Compound leaves with round leaflets. Dark purple-pink flowers from mid-spring

to early summer.

**CHARACTERISTICS:** Aggressive root system; do not plant near hardscapes/hard surfaces.

**DETAILS:** Well adopted to hot, dry climates and poor soil. Drought resistant.

Not susceptible to frost.

ROOT DAMAGE POTENTIAL: High







# Tree

## Large

Large-sized trees are grown (in most cases) larger than 50 feet tall. Will provide the most complete cover to shade a home, driveway, and at times, an adjacent street. Should never be planted under overhead utility lines.

# Choices



#### Chorisia speciosa Los Angeles Beautiful Floss Silk Tree

TYPE: Deciduous MAX HEIGHT (FT): 55 MAX SPREAD (FT): 50

EXPOSURE: Full Sun **GROWTH RATE:** Fast TREE SHAPE: Rounded / Conical

**SUNSET CLIMATE ZONES: 12-24** 

FOLIAGE: Green with no fall colors, moderately dense.

**CHARACTERISTICS:** Can handle acidic & alkaline, clay, sand and loam, well drained or wet soil. Produces beautiful showy red flowers through winter and fall. Susceptible to frost. At juvenile stage, trunk is very thorny

**DETAILS:** Branches don't droop but branches susceptible to breakage. Do not plant where there

will be heavy wind or freezing temperatures.

ROOT DAMAGE POTENTIAL: High



#### Cinnamomum camphora Camphor

Type: Evergreen MAX HEIGHT (FT): 55 MAX SPREAD (FT): 60

**EXPOSURE:** Full Sun / Partial Shade **GROWTH RATE:** Slow

TREE SHAPE: Spreading / Umbrella **SUNSET CLIMATE ZONES: 15-24** 

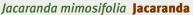
FOLIAGE: Yellow green in winter, spring foliage may be pink, red or bronze.

CHARACTERISTICS: Prefers sandy loam to clay loam. Inconspicuous fragrant yellow flowers in late Spring followed by blackish fruit. Thrives in Summer heat. Susceptible to frost.

DETAILS: Should not be planted in areas where winter temperatures go below 20 degrees.

Invasive roots, do not plant near hardscapes. Smog tolerant.

ROOT DAMAGE POTENTIAL: High



TYPE: Deciduous MAX HEIGHT (FT): 60 MAX SPREAD (FT): 45

EXPOSURE: Full Sun **GROWTH RATE:** Moderate

TREE SHAPE: Oval / Rounded / Umbrella / Vase SUNSET CLIMATE ZONES: 12, 13, 15-24
FOLIAGE: Light green, moderately dense.

CHARACTERISTICS: Can handle slightly acidic, neutral to slightly alkaline soil. Soil should be loam or sand and be kept moist Produces blue and/or lavender showy flowers that bloom spring, summer, and fall. Susceptible to frost at juvenile stage, fairly hardy after it gains some mature hardwood.

**DETAILS:** Official tree of the City of San Diego.

**ROOT DAMAGE POTENTIAL: LOW** 



#### Liquidambar styraciflua American Sweetgum / Liquidambar

MAX HEIGHT (FT): 75 TYPE: Deciduous Max Spread (ft): 50

**Exposure:** Full Sun / Partial Shade

**GROWTH RATE:** Fast TREE SHAPE: Conical

SUNSET CLIMATE ZONES: 01-12, 14-24
FOLIAGE: Leaves have beautiful red, gold, purple, and multicolored fall colors. During other seasons, they are dark green and moderately dense.

CHARACTERISTICS: Can handle very acidic, slightly acidic, to neutral and slightly alkaline soil. Texture can be clay, loam or sand. Can handle wet, moist, or dry soil. This tree produces prolific green/ brown spiny, globe-shaped seed capsules. Inconspicuous spring flowers. Not susceptible to frost. **DETAILS:** Varietals not available. Aggressive roots. Do not plant close to foundation, sidewalk, sewer lines, etc. **ROOT DAMAGE POTENTIAL:** High



Magnolia grandiflora Southern Magnolia
Type: Evergreen Max Height (FT): 80 Type: Evergreen MAX SPREAD (FT): 50

EXPOSURE: Full Sun / Partial Shade
GROWTH RATE: Fast
TREE SHAPE: Oval / Rounded / Umbrella
SUNSET CLIMATE ZONES: 04-12, 14-24
FOLIAGE: Glossy, dark green and very dense.

CHARACTERISTICS: Can handle very acidic, slightly acidic, to neutral and slightly alkaline soil. Texture can be loam or sand. Soil should be kept moist. This tree produces prolific fall and summer fruit that birds love. Very fragrant and showy white flowers through spring, summer and fall. Not susceptible to frost.

DETAILS: Blooms at a young age. Leaf drop is fairly common.
ROOT DAMAGE POTENTIAL: High



San Diego REGIONAL



Pinus canariensis Canary Island Pine
Type: Evergreen MAX HEIGHT (FT): 90 TYPE: Evergreen MAX
EXPOSURE: Full Sun / Partial Shade
GROWTH RATE: Fast

TREE SHAPE: Columnar / Conical

SUNSET CLIMATE ZONES: 05-09, 12-24
FOLIAGE: Leaves are blue green, dark green needles and dense.

CHARACTERISTICS: Can handle very acidic, slightly acidic, neutral, slightly alkaline to very alkaline soil. Soil should be loam or sand and moist or dry. Tree produces very large brown cone fruit in the winter. Not susceptible to frost. Branches take on a weeping form at maturity.

MAX SPREAD (FT): 40

MAX SPREAD (FT): 35

MAX SPREAD (FT): 60

**DETAILS:** Resistant to oak root fungus. Drought tolerant.

**ROOT DAMAGE POTENTIAL: Moderate** 



#### Pinus pinea Italian Stone Pine

TYPE: Evergreen Max Exposure: Full Sun / Partial Shade MAX HEIGHT (FT): 50 MAX SPREAD (FT): 45

**GROWTH RATE:** Fast

TREE SHAPE: Conical / Rounded / Umbrella SUNSET CLIMATE ZONES: 05-09, 14-24

FOLIAGE: Needles are gray green to medium green and very dense.

CHARACTERISTICS: Can handle very acidic, slightly acidic, neutral, slightly alkaline to very alkaline soil. Soil should be loam or sand and moist or dry. Tree produces very large brown cone

fruit in the winter. Not susceptible to frost.

**DETAILS:** Tolerates drought. Produces edible "pine nuts." **ROOT DAMAGE POTENTIAL:** Moderate



#### Platanus acerifolia London Plane Tree

TYPE: Deciduous MAX HEIGHT (FT): 90 MAX SPREAD (FT): 80

EXPOSURE: Full Sun / Partial Shade

GROWTH RATE: Fast TREE SHAPE: Oval / Rounded / Umbrella

SUNSET CLIMATE ZONES: 02-24

FOLIAGE: Leaves show bronze and gold fall color. Foliage growth color is green and dense.

CHARACTERISTICS: Soil can be very acidic, slightly acidic, neutral, and slightly alkaline.

Soil can be clay, loam or sand and wet, moist or dry. Produces prolific green/brown summer fruit and inconspicuous flowers through spring and winter. Not susceptible to frost.

**DETAILS:** A tough, durable tree that can tolerate smog.

ROOT DAMAGE POTENTIAL: High



#### Podocarpus gracilior Fern Pine

MAX HEIGHT (FT): 60

Type: Evergreen Max Exposure: Full Sun / Partial Shade

GROWTH RATE: Average

TREE SHAPE: Oval / Rounded

SUNSET CLIMATE ZONES: 08, 09, 12-24

CHARACTERISTICS: Can handle very acidic, slightly acidic, neutral, and slightly alkaline soil. Soil can be clay, loam or sand and should be kept moist. Produces small purple fruit in the fall

and inconspicuous flowers through spring. Not susceptible to frost.

**DETAILS:** Needs good drainage. **ROOT DAMAGE POTENTIAL: LOW** 



#### Quercus agrifolia Coast Live Oak

TYPE: Evergreen MAX HEIGHT (FT): 65

EXPOSURE: Full Sun / Partial Shade

**GROWTH RATE:** Average

TREE SHAPE: Rounded / Umbrella

SUNSET CLIMATE ZONES: 05, 07-10, 12, 14-24

FOLIAGE: Leaves are glossy, dark green and moderately dense.

CHARACTERISTICS: Can handle very acidic, slightly acidic, neutral to slightly alkaline soil. Should be clay, loam or sand and be kept moist or dry. Tree produces prolific fall and winter fruit, acorns.

Not susceptible to frost. Trunk collar should be kept dry. Very drought tolerant once established. **DETAILS:** Susceptible to oak moth. Sudden Oak Death manifested as a canker. CALIFORNIA NATIVE.

\*Useful as a fire break once mature. ROOT DAMAGE POTENTIAL: Moderate



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#### SAN DIEGO PEOPLE FOR TREES

P.O. Box 120505 San Diego, CA 92112-0505 www.peoplefortrees.org

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Information: 1-800-227-2600

#### CALIFORNIA URBAN FOREST COUNCIL

2500 Vallejo St., Suite 200 Santa Rosa, CA 95405 www.caufc.org

Information: 707-524-1190 Fax: 707-524-1986

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